

To: "Guy Wade" [gwade@lgl.com]; hil North/R10/USEPA/US@EPA[]
Cc: "Dr. Scott Raborn" [sraborn@lgl.com]
From: "Michael Link"
Sent: Wed 3/31/2010 11:16:47 PM
Subject: RE: Nushagak and Kvichak Smolts

Hi Phil: Thanks for inquiring. This is an interesting challenge.

I did give this some thought earlier today and think that it is definitely a little tricky. For the Kvichak, it probably should be approached by using the portion of adult escapement (tower on the Kvichak) that Talarik represents multiplied by the Kvichak River smolt estimates. However, one should really take into account compensation or compensatory mortality within Illiamna, which would reduce the size of the estimate as derived above. Of course, this is better being discussed, but I thought a quick email to provide something to think about would be helpful prior to a phone call.

This week is a little tight for me to set up a call. My sense from your message was this wasn't urgent. When might you like to discuss this on the phone. I'll cc Scott Raborn as he would be very helpful in such a discussion and maybe can tie him in if a call is arranged.

Michael

-----Original Message-----

From: Guy Wade [mailto:gwade@lgl.com]
Sent: Wednesday, March 31, 2010 10:42 AM
To: North.Phil@epamail.epa.gov; Michael Link
Subject: Re: Nushagak and Kvichak Smolts

Phil,

I wanted to let you know that I did receive your email. I will talk this over with Michael Link (Chief Scientist for BBSRI) and see if we can't provide you with some useful information in the next few days.
Thanks,
Guy

Guy Wade
gwade@lgl.com

Biologist/GIS
LGL Alaska Research Associates, Inc.
1101 E. 76th Avenue, Suite B
Anchorage, AK 99518
Phone: 907-562-3339
Fax: 907-562-7223

North.Phil@epamail.epa.gov wrote:

> Hi Guy,
> Carol Ann Woody gave me your contact information. I am an ecologist
> working on the Pebble Mine for the EPA aquatic resources program (often
> misnamed the wetlands program). I have been sketching out the issues we
> need to address in the expected upcoming review. I am trying to get a
> sense of the range of potential loss of smolt emigration given the mine
> foot print as well as possible chronic small scale spills and
> catastrophic failure of a large tailings dam. I am looking down stream
> at marine ecosystems in Bristol Bay, Bering Sea and the North Pacific.
>
> My initial estimates of smolt numbers were based on an ADFG management
> rule-of-thumb of 10% egg to smolt survival. A recent presentation by
> Carol Ann Woody suggested that this produces number that are way too
> high. She suggested I check with you. If you can spare a moment can
> you give me a little direction in how to estimate reasonable smolt
> numbers. Is that possible? I am not looking to make a firm prediction.
> I want to get a ballpark range so that I can get a sense of the
> downstream effects from loss of forage fish in marine ecosystems. We
> are trying to figure out if that might be an issue.
>
> Phil
>
> Phillip North
> Environmental Protection Agency
> Kenai River Center
> 514 Funny River Road
> Soldotna, Alaska 99669
> (907) 714-2483
> fax 260-5992
> north.phil@epa.gov
>
> "To protect your rivers, protect your mountains."
>
>
>
>
>
>